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Application No. 03 738 851.9 - 2223	Ref. P16713EPMH	Date 16.11.2006
Applicant TELEFONAKTIEBOLAGET LM ERICSSON (publ)		

**Communication pursuant to Article 96(2) EPC**

The examination of the above-identified application has revealed that it does not meet the requirements of the European Patent Convention for the reasons enclosed herewith. If the deficiencies indicated are not rectified the application may be refused pursuant to Article 97(1) EPC.

You are invited to file your observations and insofar as the deficiencies are such as to be rectifiable, to correct the indicated deficiencies within a period

**of 4 months**

from the notification of this communication, this period being computed in accordance with Rules 78(2) and 83(2) and (4) EPC.

One set of amendments to the description, claims and drawings is to be filed within the said period on separate sheets (Rule 36(1) EPC).

**Failure to comply with this invitation in due time will result in the application being deemed to be withdrawn (Article 96(3) EPC).**



23/11

Winkler, Gregor  
Primary Examiner  
for the Examining Division

Enclosure(s): 9 page/s reasons (Form 2906)  
xp102286  
RTML- standard for use of remote telescopes

Datum  
Date 16.11.2006Blatt  
Sheet 1  
FeuilleAnmelde-Nr.:  
Application No.: 03 738 851.9  
Demande n°:

The examination is being carried out on the **following application documents**:

<b>Description, Pages</b>	1-26	as published
<b>Claims, Numbers</b>	1-28	as published
<b>Drawings, Sheets</b>	1/7-7/7	as published

- 1 The following documents (D)(wherein D2 and D3 are not cited in the search report and are attached as an annex to this communication) are referred to below; the numbering will be adhered to in the rest of the procedure:

D1: EP-A1-0 896 284

D3: DATABASE INSPEC THE INSTITUTION OF ELECTRICAL ENGINEERS, STEVENAGE, PENNYPACKER C; ET AL.: "RTML - a standard for use of remote telescopes. Enabling ubiquitous use of remote telescopes", November 2002

D2: LIEFKE H., SUCIU D.: "XMILL: an efficient compressor for XML data" 2000 ACM SIGMOD. INTERNATIONAL CONFERENCE ON MANAGEMENT OF DATA, vol. 29, no. 2, pages 153-164, June 2000, XP000102286

2 Clarity (Article 84 EPC)

- 2.1 The multiplicity of definitions of the invention given in independent method claims 1 and 10 and independent program product claims 20, 21 and 22 is contrary to the requirement of the EPC. Reference is made to Article 84 EPC which deals with the clarity and conciseness of the claims as a whole, and to Rules 29(2) and (4) EPC and the Guidelines C-III 3.2 and 3.3 which deal with the general form of the claims.

In the present case it is appropriate to use only one independent claim in the method category and one independent claim defining a program product, because the subject-matter of independent claims 1 and 10 and independent claims 20, 21 and 22 does not involve as required by Rule 29(2) EPC:

- (a) a plurality of inter-related products (e.g. plug and socket)
- (b) different uses of a product or apparatus
- (c) alternative solutions to a particular problem, where it is not appropriate to cover these alternatives by a single independent claim

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Sheet 2  
FeuilleAnmelde-Nr.:  
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The applicant is requested to file an amended set of claims which complies with Rule 29(2) EPC. Failure to do so, or to submit convincing arguments as to why the current set of claims does in fact comply with these provisions, will lead to refusal of the application under Article 97(1) EPC.

2.2 The subject-matter of claims 1, 10 and 20-25 is not clear (Article 84 EPC) for the following reason:

- a These claims specify codes which have "less values than said first values". It is not clear whether the expression "less values" refers to the number of bits needed to represent a value or define that the values should have a smaller value than the first values or define that the number of elements in a set of values is smaller than the number of values in a first set.
- b The expressions "data parts" and "definition part" referred to in these claims have no well defined meaning with regard to "a data set having a markup hierarchy". E.g. it is not clear whether the expression "data parts" refers to tags, content or attributes and whether the term "a definition part" refers to a document type definition or refers to a tag.

However, the meaning of a term should be clear for the person skilled in the art from the wording of the claim alone (cf. Guidelines C-III 4.1)

As a consequence, claims 1, 10 and 20-25 are not allowable under Article 84 EPC.

2.3 The subject-matter of claim 3 is not clear (Article 84 EPC) for the following reason:

Claim 3 defines that "each code is unique". However, it is not clear in the context of claims 1 and 3 whether each data part receives a unique code or two data parts which are equal receive the same unique code.

As a consequence, claim 3 is not allowable under Article 84 EPC.

3 Novelty and inventive step (Article 54(1),(2) EPC and Article 56 EPC)



- 3.1 The present application does not meet the requirement of Articles 54(1) EPC because the subject-matter of claims 1 and 10 is not new over D1. The reasons are the following:
- a D1 discloses a method of transmitting a data set from a first application to a second application (cf. figure 1), whereby the method of transmitting also compresses the data set (cf. title).
- b D1 discloses further that the data set having a markup hierarchy (cf. paragraph 3) and comprising data parts having first values (cf. figure 21, element TAG), said data set being arranged according to a definition part (cf. figure 21, element DTD).
- c D1 discloses further that the method performs the following steps
- generating a set of codes as a compression key defining said data parts defined in said definition part with codes having less values than said first values (cf. figure 21, output code information)
  - storing said set of codes (cf. page 20, lines 23-24)
  - assigning at least said markup hierarchy with said set codes (cf. figure 21, element 103)
  - replacing said data parts in said data set by said assigned codes and producing a compressed data set (cf. figure 21, element 103)
  - transferring said compressed data set and said set of codes to said second application (cf. figure 21, output code information and output code)

As a consequence, claims 1 and 10 are not allowable under Article 52(1) EPC for lack of novelty of its subject-matter.

- 3.2 The additional features introduced by dependent claims 2, 4, 5, 8, 9 and 11 are also anticipated by D1 (cf. D1, figure 21, element 21, figure 13 and page 10, line 16).



These claims, therefore, are also not allowable under Article 52(1) EPC for lack of novelty of their respective subject-matter, Article 54(1) EPC.

3.3 The additional features introduced by dependent claims 3, 6, 7 and 12-16 do not involve an inventive step with regard to D1 and the general knowledge of a person skilled in the art. The reasons are the following:

- a The person skilled in the art use unique codes in order to allow a lossless compression and decompression and thus arrive at the subject-matter of claim 3.
- b A person skilled in the art would not only compress tags but also values pointed out by markup hierarchy in said data set (cf. D1, page 23, lines 55-56), whereby each value is assigned a code that replaces this value in said data set. The person skilled in the art would do this for values of a limited set of values as well for values of an unlimited set of values and thus arrive at the subject-matter of claims 6.
- c The person skilled in the art would apply numerical encoding of numbers without exercise of inventive skill in order to increase the compression (cf. e.g. D2, page 159, left column, lines 3-7) and thus arrive at the subject-matter of claim 7.
- d The compression of D1 is used to exchange information via internet (cf. D1, page 10, line 16). Thus, a person skilled in the art would use any of the conventional techniques used for session layer, transport layer, network layer and data link layer in order to transmit the data via the internet. Thus, the person skilled in the art would use without exercise of inventive skill the combination of a FTP-session (session layer), over a TCP/IP connection (Transport layer / Network layer) by using a V.92 modem (Data link layer) in order to transfer the compressed data of D1 whereby a package contains
  - a message type field, which is used in a FTP-session to indicate whether binary or ASCII data are transmitted.
  - a transmitting receiving application identity field, which is used in the TCP connection (cf. source port id and destination port id in the TCP header)



- compressed data, which is used in the application layer (cf. D1, figure 21, output code)
- a compression key, which is used in the application layer (cf. D1, figure 21, element code information)
- a message version field, which is used in the network layer (cf. IP header, version field stored in bits 0-3)

It is further noted that V.44 in V.92 performs compression on the data and thus compresses the compressed data and the compression key of D1.

These claims, therefore, are also not allowable since they do not comply with the disposition laid down in Article 52(1) EPC in respect of inventive step, Article 56 EPC.

- 3.4 The present application does not meet the requirement of Article 56 EPC, because the subject-matter of claim 17 does not involve an inventive step with regard to D1 and the general knowledge of a person skilled in the art. The reasons are the following:

D1 discloses a system for data transmission between at least two stations whereby the data contains a compressed data set according to claim 1 or 10 (cf. point 3.1 above).

D1 discloses further that the system comprises following elements:

- a compression handler for initiating a compression procedure (cf. figure 21, element 2)
- a key handler for generating and handling keys corresponding to codes (cf. D1, figure 22, element 154)
- a storage device for handling storage of generated keys (cf. D1, figure 22, element 155)
- a converter for implementing a first step in coding of the data set to be compressed by mean of the keys (cf. D1, figure 21, element 102)
- an optimizer for implementing a second step in optimizing the data set to be



- compressed (cf. D1, figure 21, element 105 and 106)
- a compressor for implementing a third step of compression itself (cf. D1, figure 21, element 103)

The method defined in claim 17 differs from the disclosure of D1 in that the transmission part, which handles the transmission via the internet (cf. D1, figure 1) is not further defined.

The problem to be solved by the present invention may therefore be regarded as to provide a detailed implementation of a transmission part.

A person skilled in the art knows that a conventional Internet interface of a computer contains a Transmission part (e.g. TCP/IP stack communicating via V.92 modem) which contains a

- a Transmitter for handling all communication (e.g. TCP/IP stack communicating via V.92 modem)
- a Packet handler for generating messages with respect to a Packet for transmission and reception (e.g. Internet packets created by the TCP/IP stack)
- an interface for listening to data transmission (e.g. Modem handshaking)

As a consequence, claim 17 are not allowable under Article 52(1) EPC since the subject-matter does not involve an inventive step.

- 3.5 The additional features introduced by dependent claims 18-19 do not involve an inventive step with regard to D1 and the general knowledge of a person skilled in the art. The reasons are the following:

The following features are known from D1

- a compression key handler (cf. D1, figure 21, element 112)
- a compression document handler (cf. figure 21, the combiner of the output of elements 103, 104 and 106)
- a non compressed data set handler (cf. figure 21, element 113)
- the keys having unique identity (cf. figure 13, element 101a and element COC in F2)



The following features belong to the general knowledge of a person skilled in the art, namely that the TCP/IP stack handles the Protocol at the transport and network layer and assigns unique application identity, which is also known as the source port id and destination port id.

Thus, all the features of claims 18 and 19 are known from D1 or belong to the general knowledge of a person skilled in the art.

These claims, therefore, are also not allowable since they do not comply with the disposition laid down in Article 52(1) EPC in respect of inventive step, Article 56 EPC.

- 3.6 The present application does not meet the requirement of Article 56 EPC, because the subject-matter of claims 20-23 does not involve an inventive step with regard to D1 and the general knowledge of a person skilled in the art. The reasons are the following:

The method steps implemented in claim 1 do not involve an inventive step (cf. section 3.1) and a person skilled in the art would implement these method step in a program storage device, a computer readable program code means, an article of manufacture comprising a computer useable medium or transmitting the computer readable program code means without exercise of inventive skill. Thus, the skilled person would arrive at the subject-matter of claims 20-23 without exercise of inventive skill.

As a consequence, claims 20-23 are not allowable under Article 52(1) EPC since the subject-matter does not involve an inventive step.

- 3.7 The present application does not meet the requirement of Articles 54(1) EPC because the subject-matter of claim 24 is not new over a conventional computer connected to the internet and using a Java-enabled internet browser. The reasons are the following:

A conventional computer connected to the internet and using a Java-enabled internet browser contains a computer readable medium (e.g. harddisk) having stored therein





a protocol with plurality of messages (e.g. TCP/IP).

The Java-enabled internet browser would be suitable to request

- a sets of compressed data sets
- a set of codes used for compressing said compressed data (e.g. written in Java) from a remote application (e.g. an Internet page).

The Java-enabled internet browser would be suitable to receive a response comprising said compressed data and said codes.

As a consequence, claim 24 is not allowable under Article 52(1) EPC for lack of novelty of its subject-matter.

- 3.8 The present application does not meet the requirement of Article 56 EPC, because the subject-matter of claims 25-28 does not involve an inventive step with regard to D1 and the general knowledge of a person skilled in the art. The reasons are the following:

The person skilled in the art knows that XML is used for monitoring or remote controlling robotic telescopes (cf. e.g. D3) via remote computers.

In order to reduce the communication bandwidth for these applications the person skilled in the art would apply the compression of D1 without exercise of inventive skill and thus arrive at the subject-matter of claims 25-28.

As a consequence, claims 25-28 are not allowable under Article 52(1) EPC since the subject-matter does not involve an inventive step.

#### 4 Further Remarks

- 4.1 It is noted that D2 (cf. figure 3) are equally relevant for the subject-matter of claims 1-28, since a DTD is conventionally used to verify a XML page. This should be taken into account if it is decided that the present claims could be amended in order to avoid giving rise to a further objection under Article 52(1) EPC based on D2.



- 4.2 It is requested to formulate the program claim (cf. claims 20-24) in conformity with the decision T 1173/97 (cf. point 13).
- 4.3 To meet the requirements of Rule 27(1)(b) EPC, documents D1, D2 and D3 should be acknowledged in the description.
- 4.4 Care should be taken during revision, especially of the introductory portion and any statements of problem or advantage, not to add subject-matter which extends beyond the content of the application as originally filed (Article 123(2) EPC).

In order to facilitate the examination of the conformity of the amended application with the requirements of Article 123(2) EPC, the applicant should clearly identify the amendments carried out, irrespective of whether they concern amendments by addition, replacement or deletion, and to indicate the passages of the application as filed on which these amendments are based (see Guidelines E-II, 1).

If the applicant regards it as appropriate these indications could be submitted in handwritten form on a copy of the relevant parts of the application as filed.